

REMARKS

In accordance with the foregoing, claims 1, 3, 7, 13, 14, 15, 16 and 17 have been amended and claim 2 has been cancelled without prejudice or disclaimer. No new matter is being presented. Therefore, claims 1, 2 and 4-21 are pending and reconsideration is respectfully requested.

ENTRY OF AMENDMENT UNDER 37 C.F.R. §1.116:

Applicants request entry of this Rule 116 Response because the amendment of claims 1, 7, 13, 14, 15, 16, 17 and 21 is believed to place this application into condition for allowance, and because the amendments of the claims should not entail any further search by the Examiner since the amendments involve simply incorporating the subject matter of claim 2 into the independent claims.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTIONS UNDER 35 U.S.C. §112:

Claim 21 is rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. However, since claim 21 has been amended to recite subject matter that is supported by the original specification, applicants respectfully assert that the rejection of claim 21 is overcome.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 1-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over by Ma et al (EP 1085509) in view of Eastman (U.S. Patent 5,646,919). This rejection is overcome.

Regarding the rejections of claims 1, 7, 13, 14, 15, 16, and 17, briefly, it is noted that,

these claims recite that the detecting of the radial tilt comprises reading a level value of the second phase comparison signal when a level value of the first phase comparison signal is substantially zero.

Here, it is further noted that this subject matter is presently subject to the outstanding rejection of former claim 2. However, since neither of the cited references actually discloses the claimed subject matter, it is believed that the rejection of former claim 2 is improper and that, therefore, claims 1, 7, 13, 14, 15, 16, and 17, which now include the subject matter, are allowable.

In support of this position, applicants note that the '919 reference does not disclose nor is cited for the purpose of disclosing the claimed subject matter.

With respect to the reference to Ma, it is noted that, in paragraphs [0090] and [0091] of Ma, which the Examiner cited as apparently disclosing the subject matter in question, Ma actually discloses summing amplitudes of the tilt level components when the error signals S1 and S2 are input to the differential unit 453. That is, Ma actually discloses obtaining the tilt error signal by calculating the difference between S1 and S2.

This stands in contrast to the claimed invention in which the radial tilt is obtained by reading a level value of the second phase comparison signal when a level value of the first phase comparison signal is substantially zero.

Thus, applicants respectfully assert that the claimed invention is patentably distinguished from the combination of Ma and the '919 patent, and that, therefore, the rejection of claims 1, 7, 13, 14, 15, 16, and 17 is overcome.

Regarding the rejections of claims 3-6, 8-12, 18, and 19, it is noted that these claims depend from claims 1, 7, and 17, and are therefore allowable for at least the reasons as set forth above.

Claims 1, 20 and 21 are rejected under 35 U.S.C. §103(a) as being unpatentable over by Ma et al (EP 1085509) in view of Nakamura et al (U.S. Patent 6,167,009). This rejection is overcome.

Regarding the rejection of claim 1, it is noted that the reference to Nakamura fails to cure the defects of Ma as discussed above. Therefore, the rejection of claim 1 is believed to be overcome.

Regarding the rejections of claims 20 and 21, it is noted that these claims depend from claim 1, and are therefore allowable for at least the reasons as set forth above.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited. If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters. Finally, if there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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